

In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A wireless device operable to communicate with first and second wireless communication networks of different radio access technologies, comprising:

a first modem processor operative to perform processing for a pending call with the first wireless network implementing a first radio access technology from 3rd Generation Partnership Project (3GPP), receive a first message from the first wireless network to perform handoff to the second wireless network, wherein the first message comprises a list of target cells in the second wireless network determined by the first wireless network to have a target cell location corresponding to a location of the wireless device, transmit a search message comprising a list of frequencies corresponding to the target cells to search for in the second wireless network, and provide notification of the handoff; and

a second modem processor operative to receive the search message and determine pilot acquisition for the list of frequencies and additional frequencies not included in the list of frequencies to produce a search result, acquire synchronization and timing for each cell for which pilot acquisition is determined, exchange a second message with the second wireless network implementing a second radio access technology from 3rd Generation Partnership Project 2 (3GPP2) to establish a new call with the second wireless network via one of the cells in the search result, perform a call setup procedure with the second wireless network to establish the new call, and perform processing for the new call with the second wireless network.

2. (Original) The wireless device of claim 1, further comprising:

an application processor operative to receive the notification from the first modem processor, direct the second modem processor to establish the new call, and direct the first modem processor to release the pending call.

3. (Original) The wireless device of claim 2, wherein the application processor is operative to direct the first modem processor to release the pending call concurrently with the establishment of the new call or shortly after the new call has been established to minimize disruption of service.

4. (Previously Presented) The wireless device of claim 1, wherein the first radio access technology is Wideband Code Division Multiple Access (W-CDMA) and the second radio access technology is IS-2000.

5. (Original) The wireless device of claim 4, wherein the second modem processor is operative to perform a mobile terminated (MT) call setup procedure defined by IS-2000, and wherein the second message is a General Page Message sent by the second wireless network.

6. (Original) The wireless device of claim 4, wherein the second modem processor is operative to perform a mobile originated (MO) call setup procedure defined by IS-2000, and wherein the second message is an Origination Message sent to the second wireless network.

7. (Original) The wireless device of claim 1, wherein the pending and new calls are voice calls.

8. (Original) The wireless device of claim 1, wherein the first modem processor is operative to maintain a first protocol stack for communication with the first wireless network and the second modem processor is operative to maintain a second protocol stack for communication with the second wireless network.

9. (Original) The wireless device of claim 1, wherein the second modem processor is operative to perform pilot re-acquisition and cell search, as necessary, obtain updated system information, and perform system access for the second wireless network to establish the new call.

10. (Previously Presented) The wireless device of claim 1, wherein the wireless device is operable to communicate with the first and second wireless networks simultaneously.

11. (Original) The wireless device of claim 1, wherein the handoff is triggered by the first wireless network based on measurements obtained by the wireless device.

12. (Canceled)

13. (Previously Presented) A method of performing a handoff between first and second wireless communication networks of different radio access technologies, comprising:
processing a pending call with the first wireless network implementing a first radio access technology from 3rd Generation Partnership Project (3GPP);
receiving a first message from the first wireless network to perform a handoff to the second wireless network, wherein the first message comprises a list of target cells in the second wireless network determined by the first wireless network to have a target cell location corresponding to a location of the wireless device;
transmitting a search message comprising a list of frequencies corresponding to the target cells to search for in the second wireless network;
receiving the search message and determining pilot acquisition for the list of frequencies and additional frequencies not included in the list of frequencies to produce a search result;
acquiring synchronization and timing for each cell for which pilot acquisition is determined;
exchanging a second message with the second wireless network implementing a second radio access technology from 3rd Generation Partnership Project 2 (3GPP2) to establish a new call with the second wireless network via one of the cells in the search result;
performing a call setup procedure with the second wireless network to establish the new call;
processing the new call with the second wireless network;
wherein the processing a pending call and the receiving a first message are performed by a first modem processor, and wherein the exchanging a second message, performing a call setup procedure, and processing the new call are performed by a second modem processor.

14. (Previously Presented) The method of claim 13, wherein the first radio access technology is Wideband Code Division Multiple Access (W-CDMA) and the second radio access technology is IS-2000.

15. (Previously Presented) An apparatus operable to perform a handoff between first and second wireless communication networks of different radio access technologies, comprising:

- means for processing a pending call with the first wireless network implementing a first radio access technology from 3rd Generation Partnership Project (3GPP);
- means for receiving a first message from the first wireless network to perform a handoff to the second wireless network, wherein the first message comprises a list of target cells in the second wireless network determined by the first wireless network to have a target cell location corresponding to a location of the wireless device;
- means for transmitting a search message comprising a list of frequencies corresponding to the target cells to search for in the second wireless network;
- means for receiving the search message and determining pilot acquisition for the list of frequencies and additional frequencies not included in the list of frequencies to produce a search result;
- means for acquiring synchronization and timing for each cell for which pilot acquisition is determined;
- means for exchanging a second message with the second wireless network implementing a second radio access technology from 3rd Generation Partnership Project 2 (3GPP2) to establish a new call with the second wireless network via one of the cells in the search result;
- means for performing a call setup procedure with the second wireless network to establish the new call;
- means for processing the new call with the second wireless network; and
- wherein the means for processing a pending call and the means for receiving a first message are independent of the means for exchanging a second message, the means for performing a call setup procedure, and the means for processing the new call.

16. (Previously Presented) The apparatus of claim 15, wherein the first radio access technology is Wideband Code Division Multiple Access (W-CDMA) and the second radio access technology is IS-2000.

17. (Previously Presented) An apparatus in a UMTS (Universal Mobile Telecommunications System) Terrestrial Radio Access Network (UTRAN), comprising:
means for processing a pending call with a wireless device in a first wireless network;
means for sending a first message to the wireless device to perform a handoff to a cdma2000 radio access network (RAN), wherein the first message comprises a list of target cells in the second wireless network determined by the first wireless network to have a target cell location corresponding to a location of the wireless device;
means for sending a search message comprising a list of frequencies corresponding to the target cells to search for in the second wireless network;
means for receiving a search result comprising pilot acquisitions determined for the list of frequencies and additional frequencies not included in the list of frequencies, wherein the search result further comprises each cell with which the wireless device acquired synchronization and timing based on the pilot acquisitions;
means for sending a second message to a UMTS mobile switching center (MSC) to request relocation of the wireless device to another MSC in the cdma2000 RAN;
means for receiving an indication of a new call established for the wireless device with the cdma2000 RAN via one of the cells in the search result; and
means for terminating the pending call with the wireless device.

18. (Previously Presented) A wireless device operable to communicate with first and second wireless communication networks of different radio access technologies, comprising:
a first modem processor operative to perform processing for a pending call with the first wireless network implementing a first radio access technology from 3rd Generation Partnership Project (3GPP), receive a first message from the first wireless network to perform a handoff to the second wireless network, wherein the first message comprises a list of target cells in the second wireless network determined by the first wireless network to have a target cell location corresponding to a location of the wireless device, transmit a search message comprising a list of

frequencies corresponding to the target cells to search for in the second wireless network and provide notification of the handoff;

a second modem processor operative to receive the search message and determine pilot acquisition for the list of frequencies and additional frequencies not included in the list of frequencies to produce a search result, acquire synchronization and timing for each cell for which pilot acquisition is determined, establish traffic channels with the second wireless network implementing a second radio access technology from 3rd Generation Partnership Project 2 (3GPP2) and perform processing for a new call with the second wireless network via one of the cells in the search result; and

an application processor operative to receive the notification from the first modem processor and direct the second modem processor to establish the traffic channels and process the new call with the second wireless network.

19. (Previously Presented) The wireless device of claim 18, wherein the first radio access technology is Wideband Code Division Multiple Access (W-CDMA) and the second radio access technology is IS-2000.

20. (Canceled)

21. (Original) The wireless device of claim 18, wherein the first message from the first wireless network includes information for one or more target cells in the second wireless network to which the wireless device is handed off.

22. (Original) The wireless device of claim 21, wherein the one or more target cells are determined by the first wireless network based on search results from the second modem processor for a list of frequencies in the second wireless network.

23. (Original) The wireless device of claim 18, wherein the second modem processor is further operative to send a second message to the second wireless network indicating successful completion of the handoff to the second wireless network.

24. (Original) The wireless device of claim 18, wherein the first modem processor is operative to autonomously terminate the pending call with the first wireless network after providing the notification of the handoff.

25. (Original) The wireless device of claim 18, wherein the application processor is further operative to direct the first modem processor to terminate the pending call with the first wireless network.

26. (Original) The wireless device of claim 18, wherein the first wireless network terminates the pending call based on signaling between the first and second wireless networks.

27. (Previously Presented) A method of performing a handoff between first and second wireless communication networks of different radio access technologies, comprising:

processing a pending call with the first wireless network implementing a first radio access technology from 3rd Generation Partnership Project (3GPP);

receiving a first message from the first wireless network to perform a handoff to the second wireless network, wherein the first message comprises a list of target cells in the second wireless network determined by the first wireless network to have a target cell location corresponding to a location of the wireless device;

transmitting a search message comprising a list of frequencies corresponding to the target cells to search for in the second wireless network;

receiving the search message and determining pilot acquisition for the list of frequencies and additional frequencies not included in the list of frequencies to produce a search result;

acquiring synchronization and timing for each cell for which pilot acquisition is determined;

establishing traffic channels with the second wireless network implementing a second radio access technology from 3rd Generation Partnership Project 2 (3GPP2);

processing a new call with the second wireless network via one of the cells in the search result;

wherein the processing a pending call and the receiving a first message are performed by a first modem processor, and wherein the establishing traffic channels and the processing a new call are performed by a second modem processor.

28. (Previously Presented) The method of claim 27, wherein the first radio access technology is Wideband Code Division Multiple Access (W-CDMA) and the second radio access technology is IS-2000.

29. (Previously Presented) An apparatus operable to perform a handoff between first and second wireless communication networks of different radio access technologies, comprising:

means for processing a pending call with the first wireless network implementing a first radio access technology from 3rd Generation Partnership Project (3GPP);

means for receiving a first message from the first wireless network to perform a handoff to the second wireless network, , wherein the first message comprises a list of target cells in the second wireless network determined by the first wireless network to have a target cell location corresponding to a location of the wireless device;

means for transmitting a search message comprising a list of frequencies corresponding to the target cells to search for in the second wireless network;

means for receiving the search message and determining pilot acquisition for the list of frequencies and additional frequencies not included in the list of frequencies to produce a search result;

means for acquiring synchronization and timing for each cell for which pilot acquisition is determined;

means for establishing traffic channels with the second wireless network implementing a second radio access technology from 3rd Generation Partnership Project 2 (3GPP2);

means for processing a new call with the second wireless network via one of the cells in the search result; and

wherein the means for processing a pending call and the means for receiving a first message are independent of the means for establishing traffic channels and the means for processing a new call.

30. (Previously Presented) The wireless device of claim 1, wherein the first and second modem processors independently perform processing for the first and second wireless networks, respectively.

31. (Previously Presented) The wireless device of claim 1, wherein the first and second modem processors support concurrent communication with the first and second wireless networks.

32. (Previously Presented) The wireless device of claim 1, wherein the first and second modem processors are implemented with separate processors.

33. (Previously Presented) A processor-readable memory having instructions thereon, the instructions comprising:

code for processing a pending call with the first wireless network implementing a first radio access technology from 3rd Generation Partnership Project (3GPP);

code for receiving a first message from the first wireless network to perform a handoff to the second wireless network, wherein the first message comprises a list of target cells in the second wireless network determined by the first wireless network to have a target cell location corresponding to a location of the wireless device;

code for transmitting a search message comprising a list of frequencies corresponding to the target cells to search for in the second wireless network;

code for receiving the search message and determining pilot acquisition for the list of frequencies and additional frequencies not included in the list of frequencies to produce a search result;

code for acquiring synchronization and timing for each cell for which pilot acquisition is determined;

code for establishing traffic channels with the second wireless network implementing a second radio access technology from 3rd Generation Partnership Project 2 (3GPP2); and code for processing a new call with the second wireless network via one of the cells in the search result.